

OK to enter  
ADis 6/6/20071 **SUBSTITUTE SPECIFICATION**

## TITLE OF THE INVENTION

APPARATUS FOR MEASURING SPECIFIC ABSORPTION RATE OF  
RADIO COMMUNICATION APPARATUS

## 5 BACKGROUND OF THE INVENTION

## 1. FIELD OF THE INVENTION

The present invention relates to an apparatus for measuring a specific absorption rate (hereinafter, referred to as an "SAR"), and in particular, to an apparatus for measuring an SAR of a radio  
10 communication apparatus such as a mobile phone, a portable radio communication apparatus, or the like.

## 2. DESCRIPTION OF THE RELATED ART

Recently, portable radio communication apparatuses such as a mobile phone have spread greatly. Accompanying this, a problem  
15 regarding the influence of electromagnetic waves radiated from a portable radio communication apparatus onto a human body has been caused. As a general index of the influence, an SAR is provided. The SAR is an electric power absorbed by a unit mass by exposing a living body such as a human body or the like to an electromagnetic field, and is expressed by the  
20 following Equation (1):

$$\text{SAR} = (\sigma E^2) / \rho \quad (1),$$

where E [V/m] is an electric field intensity,  $\sigma$  [S/m] is an electrical conductivity of an organic tissue, and  $\rho$  [kg/m<sup>3</sup>] is a density of the vital tissue.

25 In an SAR evaluation method or a so-called electric field detecting